

BULLETIN
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CHICAGO ACADEMY OF SCIENCES

CONTRIBUTION TO THE HERPETOLOGY
OF THE SMOKY MOUNTAINS OF TENNESSEE

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The Great Smoky Mountains of North Carolina and Tennessee have become well-known to herpetologists during the past score of years, because of their most interesting salamander fauna. In spite of all the work on these animals, only a casual mention of the remainder of the herpetofauna can be found in the literature. It therefore seems justifiable to report on the reptiles and salientians in several small collections which are available to me, even though I am aware that the list is necessarily incomplete. The salamanders are not treated because the material is not sufficient to warrant description in view of previous work. *Triturus viridescens*, collected at Cades Cove, 2000 feet altitude, May 1, 1933, is the only species not previously reported from these mountains.

The paper is based on collections made by Edwin V. Komarek, Donald C. Lowrie, and Walter L. Necker during April, 1931; by Vera Y. Foster during the last week of April, 1932; and by Edwin V. and Roy V. Komarek at intervals during 1932 and 1933. The first two were made in the vicinity of Greenbrier, Sevier County, Tennessee, under the auspices of the Chicago Academy of Sciences; the other partly at Greenbrier, and partly at Cades Cove, Blount County, Tennessee, during a preliminary survey of the mammal life of the Smoky Mountains, being conducted by Mr. Komarek for the Academy. Several specimens collected by A. S. Windsor near Gatlinburg, Sevier County, Tennessee, are also included.

I am indebted to the Director of the Academy, Mr. Alfred M. Bailey, for the privilege of reporting on the collections in the Academy, and, especially, to Mr. Karl P. Schmidt for the use of specimens in the collection of Field Museum of Natural History, as well as for many helpful suggestions during the preparation of the manuscript.

The colloquial name follows the scientific. Museum numbers are given for all snakes (C.A.S. for the Chicago Academy of Sciences and F.M. for Field Museum of Natural History); they are omitted for the other forms, as no data for individuals is given. Representatives of nearly all series have been deposited in Field Museum, the main series being kept in the museum of the Academy.

Bufo americanus americanus HOLBROOK

Toad-frog

Toads are very common in the low, marshy meadows. Breeding activities were in full swing during the third week in April, 1931. 30 specimens, Greenbrier, 17-1800 feet, March and April, 1931 and 1932.

Pseudacris nigrita triseriata (WIED)

Found in marshy meadows and springs; confined to lower altitudes. 13 from Greenbrier, 1600 feet, March 24, 1932; 3 from Greenbrier, 1700 feet, November 19, 1932; 3 from Cades Cove, 2000 feet, May 1, 1933.

Hyla crucifer WIED

Found in the same habitat as *Pseudacris*, but much more abundant. 32 from Greenbrier, 1700 feet, March 19, 1931; 1, Greenbrier, 1700 feet, November 19, 1932; 19, Cades Cove, 2000 feet, May 1, 1933; 42, Cades Cove, 2000 feet, May 4, 1933 (including one albino).

Hyla versicolor versicolor LECONTE

20 specimens from Cades Cove, 2000 feet, May 4, 1933; and 1 from Dry Valley, near Cades Cove, 1700 feet, May, 1933.

Rana catesbeiana SHAW

Bull-frog

Rare near marshes and ponds of the lower altitudes. Two from Greenbrier, 1700 feet, April 29, 1932 and April 26, 1933.

Rana clamitans LATREILLE

Little bull-frog

The commonest of the true frogs, frequenting the slower streams as well as marshy localities. 7 from Greenbrier, 16-1800 feet, March and April, 1931 to 1933; 7 from Cades Cove, 1900-2000 feet, May 1-4, 1933.

Rana pipiens SCHREBER

Only one specimen collected. Cades Cove, 2000 feet, May 4, 1933.

Sceloporus undulatus (LATREILLE)

Fence lizard

Very common from 1700-2900 feet altitude; frequents rail and stone fences and open rocky places. 23 specimens from Greenbrier, 1700-2900 feet, March and April, 1931-1933; 1 from Cades Cove, 2000 feet, April 30, 1933.

Eumeces fasciatus (LINNAEUS)

Scorpion

Much scarcer than *Sceloporus*. One lived under our cabin; others were frequently seen on a log bridge over a fork of the Little Pigeon River near Greenbrier. The series is too small to allow an opinion on the recent splitting of this species by Taylor. 3 from Greenbrier, April 26-29, 1932; 1, Greenbrier, February, 1933 (excavated by a road-building gang); 1, Greenbrier, March 18, 1933.

Carphophis amoena amoena (SAY)

The single specimen appears to be *amoena*, in that the prefrontals and internasals are not united; the ventrals, also, are above the average given by Blanchard* for *helenae*. A series will very likely show

*The forms of *Carphophis*. Papers Mich. Acad. Sci., 4, 527-530, 1925.

that the form found in these mountains is intermediate. Supralabials, 5; infralabials, 6; oculars, 1-1; temporals, 1-2.

Mus. No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S. 1783	Greenbrier	August, 1932	♀	13-13-13	131	32	213	15

Diadophis punctatus edwardii (MERREM) Young black snake

Common under rotting logs. The mountaineers insist that this is the young of *Elaphe obsoleta*. Supralabials, 8; infralabials, 8; oculars, 1-2; temporals 1-1, except in C.A.S. 1315 where they are 1-2.

Mus. No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S. 1099	Greenbrier	Apr. 26, 1932	♂	15-15-15	162	61	158	20
C.A.S. 1780	Greenbrier	July, 1932	♀	15-15-15	154	49	148	19
C.A.S. 1781	Greenbrier, 1800 ft.	Mar. 18, 1932	♂	15-15-15	158	57	137	22
C.A.S. 1782	Greenbrier	August, 1932	♂	15-15-15	157	58	165	22
F.M. 19304	Greenbrier	April, 1931	♂	15-15-15	162	58	184	22

Opheodrys aestivus (LINNAEUS)

Supralabials, 7, except C.A.S. 1779 which has 6 on one side; infralabials, 8, except C.A.S. 1779 which has 7 on one side; oculars, 1-2, except F.M. 15810 which has 2-2 on both sides; temporals, 1-2.

Mus. No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S. 1779	Greenbrier	Jul. 6, 1932	♂	17-17-15	161	133	288	35
F.M. 15810	Gatlinburg	Jul. 5, 1931	♂	17-17-15	155	132	610	40
F.M. 15911	Gatlinburg	Jul. 9, 1931	♀	17-17-15	153	129	698	38

Coluber constrictor constrictor (LINNAEUS)

Racer

Supralabials, 7 and 8; infralabials, 9; oculars, 1-2 and 2-2; temporals, 2-2.

Mus. No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S. 1760	Greenbrier	August, 1932	♂	22-17-15	179	97	924	26

Elaphe obsoleta obsoleta (SAY)

Black snake

This species is more common than the one specimen collected would indicate. Supralabials, 8; infralabials, 11; oculars, 1-2; temporals, 2-3 and 3-3.

Mus. No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S. 872	Greenbrier	Apr. 10, 1931	♀	25-25-19	234	72		

Lampropeltis triangulum triangulum (LACEPEDE)

House snake

Supralabials, 7; infralabials, 9; oculars, 1-2; temporals, 2-3, except in F.M. 19306, which has 2-2 on one side.

Mus. No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S. 1609	Greenbrier	August, 1932	♀	21-21-17	206	44		
C.A.S. 1761	Greenbrier, 1760 ft.	Mar. 21, 1933	♂	21-21-19	197	48	730	16
C.A.S. 1762	Greenbrier, 1760 ft.	Mar. 20, 1933	♂	21-21-19	194	48	577	15
C.A.S. 1763	Greenbrier, 1760 ft.	Mar. 7, 1933	♂	21-21-19	198	48	833	13
F.M. 19306	Greenbrier	Jul. 6, 1932	♂	21-21-19	205	47	288	14

Natrix sipedon sipedon (LINNAEUS)

Water snake

Very abundant along all streams. Supralabials, 8, except in C.A.S. nos. 870 and 1341 which have 9 on one side; infralabials, 10, except in C.A.S. nos. 870 and 1770 which have 11 on one side, 1336, 1342, and 1769 which have 11 on both sides, and 1339 which has 9 on both sides; oculars, 1-3, except C.A.S. nos. 1335 and 1770, which have

1-2 on one side, and 1339 which has 1-2 on both sides; temporals, 1-3, except C.A.S. nos. 870, 871, 1336, and 1769, and F.M. 19307, which have 1-2 on one side, and C.A.S. nos. 1335, 1341, and 1610 which have 1-2 on both sides

Mus.	No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S.	870	Greenbrier, 1800 ft.	Apr. 12, 1931	♀	21-23-17	136	60	271	23
C.A.S.	871	Greenbrier, 2000 ft.	Apr. 26, 1932	♂	21-23-17	132	77	725	26
C.A.S.	1335	Greenbrier	Apr. 26, 1932	♂	21-23-19	138			
C.A.S.	1336	Greenbrier	Apr. 18, 1931	♀	23-21-17	139			
C.A.S.	1337	Greenbrier	Apr. 26, 1932	♂	23-23-17	135	68	229	26
C.A.S.	1338	Greenbrier	Apr. 26, 1932	♂	21-23-17	135	69	223	26
C.A.S.	1339	Greenbrier	Apr. 26, 1932	♂	23-23-17	137	74	210	27
C.A.S.	1340	Greenbrier	Apr. 26, 1932	♂	21-23-17	138			
C.A.S.	1341	Greenbrier	Apr. 26, 1932	♀	23-23-17	132	62	274	23
C.A.S.	1342	Greenbrier	Apr. 26, 1932	♂	21-23-19	138			
C.A.S.	1610	Greenbrier	August, 1932	♂	23-23-19	138	56	777	21
C.A.S.	1769	Greenbrier, 3000 ft.	Jul. 17, 1932	♂	21-19-17	138	67	614	22
C.A.S.	1770	Greenbrier	August, 1932	♂	21-21-17	137	73	626	27
F.M.	19307	Greenbrier, 1650 ft.	Mar. 24, 1933	♂	21-23-17	133	77	221	27

Thamnophis sirtalis sirtalis (LINNAEUS)

Garter snake

Garter snakes are common throughout the mountains and are worthy of considerable study. Supralabials, 7, except C.A.S. nos. 1767 and 1768, which have 8; infralabials, 10, except C.A.S. nos. 1764 and 1766 which have 9 on one side, and 1765 which has 9 on both sides; oculars, 1-3, except C.A.S. nos. 1343 and 1344, and F.M. 19302 which have 1-4 on one side, and C.A.S. 1764 which has 2-2 on one side; temporals, 1-2, except F. M. 19302, which has 1-3 on one side, and C.A.S. nos. 1343 and 1344 which have 1-3 on both sides.

Mus.	No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S.	901	Greenbrier	Apr. 24, 1931	♀	19-19-17	147	65	618	22
C.A.S.	902	Greenbrier	Apr. 24, 1931	♂	19-19-17	143	66	654	22
C.A.S.	1343	Greenbrier, 4000 ft.	Apr. 26, 1932	♂	19-19-17	143	65	680	21
C.A.S.	1344	Greenbrier, 4000 ft.	Apr. 26, 1932	♀	19-19-17	145	67	620	22
C.A.S.	1764	Greenbrier, 1800 ft.	Feb. 1, 1933	♂	19-19-17	151	76	553	25
C.A.S.	1765	Greenbrier, 6400 ft.	Jun. 20, 1933	♂	19-19-17	144	57	518	20
C.A.S.	1766	Greenbrier, 5000 ft.	Jun. 18, 1933	♂	19-19-17	145	63	622	19
C.A.S.	1767	Greenbrier, 2500 ft.	Sep. 30, 1933	♂	19-19-17	146	61	554	20
C.A.S.	1768	Greenbrier, 5200 ft.	Sep. 30, 1922	♂	19-19-17	146	69	950	23
F.M.	19308	Greenbrier, 1800 ft.	Mar. 18, 1932	♂	19-19-17	155	74	274	23
F.M.	19303	Greenbrier, 4500 ft.	April, 1931	♀	19-19-17	146	67		
F.M.	19302	Greenbrier, 1750 ft.	Apr. 8, 1931	♂	19-19-17	153	78	590	26

Agkistrodon mokasen BEAUVOIS

Copperhead

Supralabials, 8; infralabials, 10 and 11; oculars, 2-4 and 2-5.

Mus.	No.	Locality	Date	Sex	Rows	vntrls	cdls	lgth	%t'l
C.A.S.	1603	Greenbrier	August, 1932	♂	25-21-17	150	48	774	14

Crotalus horridus LINNAEUS

Rattler

One specimen, beyond preservation, was received, and several skins were seen.

Chelydra serpentina (LINNAEUS)

Snapper

A specimen with carapace measurement of 10 inches, was found about 1800 feet, at Greenbrier, April, 1931.

Terrapene carolina (LINNAEUS)

One collected near Greenbrier, 1000 feet, November, 1932.